2011 Consumer Confidence Report

Water System Name: Buckingham Park Water District CWS#: 1710011 Report Date: July 1, 2012

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2011.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Surface Water

Name & location of source(s):

The Buckingham Park Water District's source water is Clear Lake.
The District's raw water intake is located 300 feet off shore in an easterly direction from 2880 Eastlake Drive, in the township of Kelseyville within the County of Lake.

Drinking Water Source Assessment information:

An assessment of the Drinking water source for Buckingham Park Water District was completed in April 2002. The source is considered most vulnerable to the following activities associated with contaminants detected in the water supply:

Agricultural drainage
Historic mining

In addition, the source is considered most vulnerable to these activities:

Septic systems
Lake recreation

You may obtain further information about the April 2002 Source Water Assessment by calling the District's General Manager at the phone number listed below.

Time and place of regularly scheduled board meetings for public participation:

The District's Board of Directors meets regularly on the fourth Monday of each month, excluding December, at 5:00 p.m. The public meetings are held at the Buckingham Homes Association Clubhouse, which is located at 2850 Eastlake Drive, Kelseyville.

If you would like to request a disability-related modification or accommodation necessary to participate in the Board of Directors meeting, the request should be made in writing to Nakia Foskett, the Secretary to the Board at (707) 279-8568, at least 48 hours prior to the start of the meeting.

For questions, comments or suggestions related to the information provided herein, please feel free to contact the District's General Manager, Ellen L. Pearson at (707) 279-8568 or for "Water Emergencies" you may call (707)349-1986.

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	10	< 5.0	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.292	0	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	10/04/2011	18.0	18.0	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	10/04/2011	130.0	130.0	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (TTHM) (ppb or ug/L)	08/02/2011	*100.0	64.0 - 100.0	80.0	N/A	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb or ug/L)	11/08/2011	**63 .0	44.0-63.0	60.0	N/A	By-product of drinking water disinfection
Nitrate (as N03) (mg/L or ppm)	10/04/2011	4.7		45.0	45.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite (as Nitrogen) (mg/L or ppm)	10/04/2011	< 0.40		1.0	1.0	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride (mg/L or ppm)	10/04/2011	0.18		2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Aluminum (mg/L or ppm)	10/04/2011	0.54		1.0	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Antimony (ug/L or ppb)	10/04/2011	< 6.0		6.0	20.0	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ug/L or ppb)	10/04/2011	4.1		10.0	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (mg/L or ppm)	10/04/2011	< 0.1		1.0	2.0	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Beryllium (ug/L or ppb)	10/04/2011	<1.0		4.0	1.0	Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries
Cadmium (ug/L or ppb)	10/04/2011	<1.0		5.0	0.4	Galvanized pipes internal corrosion; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Chromium (ug/L or ppb)	10/04/2011	<1.0		50.0	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Mercury (ug/L or ppb)	10/04/2011	<1.0		2.0	1.2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland
Nickel (ug/L or ppb)	10/04/2011	<10.0		100.0	12.0	Erosion of natural deposits; discharge from metal factories
Perchlorate (ug/L or ppb)	04/03/2012	<4.0		6.0	6.0	Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.
Selenium (ug/L or ppb)	10/04/2011	<5.0		50.0	30.0	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Thallium (ug/L or ppb)	10/04/2011	<1.0		2.0	0.1	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS					
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Aggressive Index	10/04/2011	11.6		NONE	NONE
Alkalinity (mg/L or ppm)	10/04/2011	150.0		NONE	NONE
Bicarbonate (mg/L or ppm)	10/04/2011	190.0		NONE	NONE
Carbonate (mg/L or ppm)	10/04/2011	< 1.0		NONE	NONE
Hydroxide (mg/L or ppm)	10/04/2011	< 1.0		NONE	NONE
Calcium (mg/L or ppm)	10/04/2011	20.0		NONE	NONE
Magnesium (ug/L or ppb)	10/04/2011	< 20.0		NONE	NONE

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Copper (mg/L or ppm)	10/04/2011	< .05		1.0	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (ug/L or ppb)	10/04/2011	< 100.0		300.0	N/A	Leaching from natural deposits; industrial wastes
Sulfate (mg/L or ppm)	10/04/2011	3.7		500.0	N/A	Runoff/leaching from natural deposits; industrial wastes
Chloride (mg/L or ppm)	10/04/2011	8.0		500.0	N/A	Runoff/leaching from natural deposits; seawater influence
Apparent Color (std. Units)	10/04/2011	15.0		15	N/A	Naturally occurring organic materials
Specific Conductance (umho/cm)	10/04/2011	320.0		1600.0	N/A	Substances that form ions when in water; seawater influence
Silver (ug/L or ppb)	10/04/2011	< 10.0		100.0	N/A	Industrial Discharges
Odor Threshold at 60C (TON)	10/04/2011	12.0		3.0	N/A	Naturally occurring organic materials
Zinc (mg/L or ppm)	10/04/2011	<0.05		5.0	N/A	Runoff/leaching from natural deposits; industrial wastes
MBAS (ug/L or ppb)	10/04/2011	< 50.0		500.0	N/A	Municipal and industrial waste discharges
Manganese (ug/L or ppb)	10/04/2011	< 20.0		50.0	N/A	Leaching from natural deposits

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique [a] (Type of approved filtration technology used)	**Conventional Treatment, including:** coagulation, flocculation, sedimentation, **filtration using two parallel dual media pressure filters**, and disinfection with Sodium Hypochlorite.
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 - Be less than or equal to **0.3 NTU** in 95% of measurements in a month. 2 - Not exceed **1.0 NTU** for more than eight consecutive hours. 3 - Not exceed **5.0 NTU** at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	99%
Highest single turbidity measurement during the year	1.0 NTU
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

** Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.*

Summary Information for Violation of a Surface Water TT

VIOLATION OF A SURFACE WATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
NONE				

Summary Information for Operating Under a Variance or Exemption

NONE

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At your service:

Dedicated Board of Directors

Mark Boyle — President
George Hawley — Vice President
Rick Kemp — Director
Taja Odom — Director
Mike Yeomans — Director

Management

Nakia Foskett — Office Manager
Ellen Pearson — General Manager

Operators

(Treatment & Distribution System)

Alan Mitchell — Shift Operator
Thomas Gerhard — Utility Worker
Ellen Pearson — Chief Operator

Buckingham Park Water District Mission Statement:

We shall strive to provide reliable and wholesome water to our customers at reasonable rates, while reducing our environmental impact and increasing sustainability !